Hartlepool Port Sanitary Authority.

III

Annual Report

OF THE

Medical Officer of Health

MINISTRY OF HEALTH LIBRARY

for the Year Ending
31st December, 1931.

By ARNOLD S. L. BIGGART,
M.B., Ch.B.

William Barlow & Son, Printers, Park Road, West Hartlepool.

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Hartlepool Port Sanitary Authority.

1932.

CHAIRMAN ... F. J. CARR (Mayor of Hartlepool).
VICE-CHAIRMAN ... ... A. HYDE, J.P.

West Hartlepool Representatives :

T. CLARKSON, J.P., Westbourne Road, West Hartlepool.
W. T. RYAN, Wilton Avenue, West Hartlepool.
A. HYDE, J.P., Kenmara, Park Road, West Hartlepool.
J. W. BOANSON, J.P., 57, Church Street, West Hartlepool.
G. E. HOPE, The Cedars, Westbourne Road, West Hartlepool.
W. J. WATT, Clifton Avenue, West Hartlepool.
W. G. ROPNER, Hartdale, West Hartlepool.
J. H. FARMER, Highlands, Wooler Road, West Hartlepool.
W. A. SMITH, J.P., Upper Church Street, West Hartlepool.
E. BLOOM, Elm Grove, West Hartlepool.

Hartlepool Representatives :

R. H. DAVISON, J.P., Shincliffe, Hartlepool.
C. CHAMBERS, 86 Hart Road, Hartlepool.
F. J. CARR, 2 Gladstone Street, Hartlepool.
T. H. PAILOR, 8 Arch Street, Hartlepool.
A. LOVE, Middlegate, Hartlepool.

Fixed Days of Meeting :
At the Municipal Buildings, West Hartlepool.

Feb. 18th, 1932	June 16th, 1932	Oct. 20th, 1932
April 21st, 1932	Sept. 15th, 1932	Dec. 15th, 1932

each day at 3-0 p.m.

Finance, Hospital & Port Committees :

All the Members of the Authority are Members of these Committees.

The Committees meet at 2-45 p.m. on the same day as the monthly meeting is held.

Officers :

Clerk : C. GILBERT BUNTING, Solicitor, Exchange Building, 66 Church St., West Hartlepool. Telephone No. 2850.
Medical Officer : A. S. L. BIGGART, M.B., Ch.B., 116 Scarboro' Street, West Hartlepool.
Deputy Medical Officer : L. J. STONE, M.B., Ch.B., 116 Scarboro' Street, West Hartlepool.
Surveyor : F. DURKIN, A.M.I.C.E., Municipal Buildings, West Hartlepool.
Inspector : O. P. MITCHELL, C.S.I., 24 Town Wall, Hartlepool. Tel. No. 6052.
Deputy Inspector : R. S. JONES, Port Sanitary Hospital, Hartlepool.
Rat Catcher : G. MENHENNET, 8 Brunswick Street, Hartlepool.

ANNUAL REPORT.

WEST HARTLEPOOL,
FEBRUARY, 1932.

To the Chairman and Members of the
Hartlepool Port Sanitary Authority.

Gentlemen,

I hereby submit my Report for the year ending 31st December, 1931. The first part (A) deals with the work done at the Port Sanitary Hospital; the second part (B) details the work carried out in the port and is arranged in the sequence required by the Ministry of Health.

A

Hospital.

During the year ending 31st December, 1931 there were 188 cases admitted into the Hospital as compared with 184 cases in 1930.

Of these 188 cases there were :—

Scarlet Fever	122	cases
Diphtheria	45	,,
Typhoid Fever	16	,,
Erysipelas	3	,,
Measles	1	case
Chicken Pox	1	,,
	188	

Of these 188 cases, there came from :—

County Borough of West Hartlepool	166	cases
Borough of Hartlepool	15	,,
Rural District	5	,,
Ships	2	,,
	188	

There were 84 males and 104 females, the average age of whom was 10.95 years.

The number of deaths which occurred during the year was 5, giving a percentage of 2.6 as compared with 5.4 in 1930.

The deaths were made up as follows :—

Typhoid Fever ...	3
Diphtheria	2
	5

Of these deaths 3 were West Hartlepool patients and 2 Hartlepool patients.

Hospital Staff.—This consists at present of a Matron, a Sister, a Staff Nurse, an Assistant Nurse and 2 Probationer Nurses, a Laundress, Cook, Housemaid, 2 Ward Maids, a Porter, and a Sewing Maid (temporary).

Hospital Accommodation.—There are 50 beds at the Hospital for patients.

B I. AMOUNT OF SHIPPING ENTERING THE PORT DURING THE YEAR 1931.

Table A. (*Ministry of Health*).

1931		Number	Tonnage	Number inspected		Number reported to be Defective	No. of Vessels on which defects were remedied	Number of vessels reported as having or having had, during the voyage infectious disease on Board
				By the Medical Officer of Health	By the Sanitary Inspector			
From Foreign	Steamers	535	698,796	16	486	65	65	3
	Motors	11	15,965	...	8	1	1	...
	Sailing	...	...	...	...	...	...	...
	Fishing	...	...	...	...	...	...	...
Total from Foreign		546	714,761	16	494	66	66	3
Coast-wise	Steamers	834	741,255	10	629	24	24	1
	Motors	14	6,976	...	10	2	2	...
	Sailing	7	1,736	...	...	...	...	...
	Fishing	...	...	...	3	...	...	...
Total Coastwise		855	749,967	10	642	26	26	1
Total Foreign and Coastwise		1,401	1,464,728	26	1,136	92	92	4

The following figures show the number of vessels of each nationality inspected.

Belgian	4
Danish	54
Dutch	24
Esthonian	9
Finnish	11
French	14
German	60
Greek	7
Italian	6
Jugo Slav	3
Latvian	18
Norwegian	60
Russian	9
Spanish	26
Swedish	114
American	2
British	715
	1136

II. CHARACTER OF TRADE OF PORT.

Table B (*Ministry of Health*).

No. of Passengers.	1st Class	2nd Class	3rd Class	Transmigr'nts
Inwards	...	...	...	...
Outwards	...	...	...	...

(*a*) **Passenger Traffic during 1931** :—

This, not being an approved Port under the Aliens Order, 1920, for the landing of aliens, there is no regular traffic. The few alien passengers who land here are sent to the Tyne for examination.

(*b*) **Cargo Traffic** :—

The figures here given indicate the nature and amount of trade done. The imports and exports for the year 1931 are as follows :—

Description	Imports					Exports			
	Loads	Tons	cwts	qrs.	lbs.	Tons	cwts	qrs.	lbs.
Wood & Manufactures thereof									
Ash, Beech, Birch, etc. ...	4,807	...	...	...	...	...	...	...	...
Battens, Boards, Deal, etc.	106,069	...	...	...	...	...	...	...	...
Mining Timber, round and square	3,545	...	...	...	...	...	...	...	...
Pit Props	172,925	...	...	...	...	...	...	...	...
Sleepers	22,723	...	...	...	...	...	...	...	...
All other kinds of timber	2,296	...	...	...	...	...	...	...	...
Total ...	312,415	...	...	...	...	...	...	...	...
Coal, Coke, etc. (including bunker coal)	...	...	...	...	...	3,188,663	...	...	...
Iron and Steel and manufactures thereof ...	...	334	11	...	...				
Ore	...	8,517	4	...	...	...	...	...	...
Miscellaneous Goods, etc. ...	...	25,860	5	2	13	...	...	...	...
Total of Imports and Exports	312,415	34,712	0	2	13	3,188,663	...	...	...

The above particulars have been supplied through the courtesy of Mr. John W. Goldson, secretary to the Hartlepool Port and Harbour Commissioners.

(*c*) **Foreign Ports from which vessels arrive** :—

Country	Ports
America ...	Vancouver, New Orleans, Galveston.
Australia ...	Port Pirie.
Belgium ...	Ghent, Brussels,Antwerp, Zeebrugge, Bruges, Ostend.
Denmark ...	Kallundborg, Elsinore, Frederikshavn, Horsens, Norresundby, Esbjerg, Copenhagen, Aarhuus.
France ...	Dieppe, Fecamp, Marseilles, Nantes, Havre, Dunkirk, Caen, Bayonne, Bordeaux, Calais, Trouville, Granville, St. Nazaire, Boulogne.
Finnland ...	Nye Karleby, Kasko, Kemi, Helsingfors, Kotka, Raumo, Jacobstad, Yxpila, Trangsund, Lovisa, Huunola, Uleaborg, Wyborg, Wasklot, Himango, Gamla Carleby, Nystad, Frederikshamn.
Germany ...	Konigsberg, Bremen, Emden, Danzig (D. F.S.), Brunsbuttel, Altona, Harburg, Hamburg, Salismunde, Holtenau.
Holland ...	Rotterdam, Vlaardingen, Ymuiden, Dordrecht, Amsterdam, Vilvoorde.
Latvia ...	Windau, Riga.
Norway ...	Porsgrund, Kragero, Stavanger, Oslo, Haugesund.
Poland ...	Gdynia.
Russia ...	Leningrad, Murmansk, Vladivostock, Kem, Archangel, Petchora, Soroka.
Spain ...	Santander.
Sweden ...	Gothenburg, Sundsvall, Kalmar, Skutskar, Westervik, Norrkoping, Skoghall, Lulea, Hornoviken, Hargshamn, Kalix, Hudiksvall, Pitea, Norrsundet, Ornskjoldsvik.

INSPECTORS' MONTHLY REPORTS.

Date of Report 1931	Description of Ship			Nationality		Trade Engaged In		Total examined	Sanitary Conditions		Wr't'n Notic's	Verbal Notic's	Total written and Verbal Notices
	Steam	Sail	Motor	B'tish	F'r'ign	Coast	F'r'ign		Good	Bad			
January 14th ...	45	0	0	28	17	25	20	45	40	5	0	5	5
February 18th ...	98	0	1	72	27	65	34	99	87	12	0	12	12
March 18th ...	91	0	3	61	33	61	33	94	88	6	0	6	6
April 15th ...	77	0	1	56	22	45	33	78	70	8	0	8	8
May 20th ...	98	0	1	77	22	57	42	99	94	5	0	5	5
June 17th ...	78	0	2	56	24	48	32	80	71	9	0	9	9
July 15th ...	86	0	2	48	40	51	37	88	83	5	0	5	5
Aug.-Sept. 16th	187	0	1	87	101	83	105	188	174	14	0	14	14
October 14th ...	92	0	3	50	45	43	52	95	86	9	0	9	9
November 18th	115	0	1	77	39	64	52	116	108	8	0	8	8
December 31st ...	151	0	3	103	51	100	54	154	143	11	0	11	11
Total for 1931 ...	**1118**	**0**	**18**	**715**	**421**	**642**	**494**	**1136**	**1044**	**92**	**0**	**92**	**92**
Total for 1930 ...	**1133**	**1**	**20**	**664**	**490**	**534**	**620**	**1154**	**1060**	**94**	**0**	**94**	**94**

III. SOURCE OF WATER SUPPLY.

(*a*) **For the Port.** (*b*) **For Shipping.**

The water for the Ports of Hartlepool and West Hartlepool, and also for shipping in the Ports is supplied by the Hartlepool Gas and Water Company. It is obtained from springs and catchment basins, is hard but of excellent quality. All vessels requiring water while in port obtain their supplies through hydrants from the several quays or wharves where the service is laid. There are no Water Boats in use for shipping in the Hartlepools.

IV. INFECTIOUS DISEASE.

Cholera, Yellow Fever and Plague Regulations, 1907.

There was no vessel required to be dealt with, at this port under the above mentioned Regulations during the year 1931.

Chicken Pox.

NORWEGIAN S/S "AUN," FROM LULEA.

Arrived on September 2nd when the master reported that a trimmer on board was sick. The Medical Officer at once examined the man, found him to be suffering from Chicken Pox and ordered his removal to the Port Sanitary Hospital the same day. His effects and berth were disinfected and he was discharged cured on September 24th.

Typhoid Fever.

RUSSIAN S/S "ISKRA," FROM LENINGRAD.

Arrived on October 7th with all on board reported well. Two days later the Medical Officer examined five men reported by the master to be sick. On October 12th one of these men, having developed a temperature was sent to Hospital and as the vessel was proceeding to Blyth that day, information was sent to the Medical Officer of that port. It was later discovered that the man was suffering from Typhoid Fever. He was discharged cured on November 21st.

Typhoid Fever.

British s/s "Carperby."

Arrived April 11th. The owners of this vessel informed the Port Sanitary Authority that this vessel was due to arrive here from Amsterdam and reported that during a voyage from this country to the River Plate and back to the Continent several cases of sickness had occurred, that one man had been left in hospital at Las Palmas and also that four men had been left in hospital at Amsterdam. The vessel arrived here late at night when the Medical Officer inspected the crew and found them all well, including two who were among the first to be sick. From a very excellent log kept by the master from December 16th, 1930 to March 30th, 1931 it was possible to obtain the history and progress of the outbreak, commencing with the Boatswain, the first man to take ill, until the arrival of the vessel at Hartlepool. As no advice was received from the medical authorities at Amsterdam a letter was sent to them asking for information concerning the 4 cases left there and in reply it was stated that they were suffering from Typhoid Fever. In the meantime 2 samples of drinking water were taken here and sent for analysis. The reports stated that both samples were unsatisfactory but that B. Typhosus was not demonstrated. The drinking water tanks were emptied, thoroughly cleansed and refilled. All w.c.'s on the ship were disinfected with Perchloride of Mercury and notification made to Medical Officers of the several districts to which members of the crew paid off were going. The origin of the outbreak remains obscure but points to the Boatswain, the first man to be sick.

Scarlet Fever.

British s/s "New Lambton," from London.

Arrived October 21st. The master reported on arrival that when leaving the Thames one of the crew had been landed at Gravesend suffering from Scarlet Fever. The bed and effects of the man were sent to the Hartlepool Port Sanitary hospital and the berth fumigated.

INFECTIOUS DISEASE—contd.

(*Ministry of Health.*)

(1) Arrangements for detection of Infectious Disease on inward vessels.

The Regulations made by this Authority in 1886, revised and approved by the Ministry of Health in 1928, require the master, or other person having charge of a ship, arriving within the jurisdiction of the Authority with any person on board, whether a passenger or a member of the ship's crew, suffering from a dangerous infectious disease, to stop on arrival in the outer Bay, and forthwith send notice to the Inspector at his Office, No. 24 Town Wall, Hartlepool, in order that the Inspector may cause the Medical Officer of Health to visit the vessel. Should the weather be such as to endanger the safety of the vessel, she may be brought into Port and moored at convenient buoys. The vessel must remain in the outer Bay, or alternatively at the buoys until medical inspection has taken place. The Medical Officer shall, as soon as practicable, visit the vessel and ascertain whether such person referred to in the notice, is suffering from a dangerous infectious disease, and, if so, shall cause such person to be removed to the Port Sanitary Hospital (Throston, Hartlepool) or in the case of small pox to Middlesbrough Small Pox Hospital. The master or other person in charge of the ship must comply with all the directions of the Medical Officer of Health.

If any dangerous infectious disease should break out on board any ship on arrival in the Dock or Harbour, the master or person in charge is required to inform the Medical Officer or the Inspector of such outbreak.

The Inspector's house and office, which is the property of the Port Sanitary Authority, commands a view of the Hartlepool Bay : so that, not only can the arrival of a ship in the Bay be observed, but also any "day" or "night" signals. This enables the Inspector, should it be necessary, to make speedy arrangements for the visit of the Medical Officer.

(2) Arrangements for notification to the P.S.A. of the arrival of inward vessels requiring special attention.

There are no special arrangements for the receipt by this Authority of wireless messages relating to the health on board of incoming vessels. Any wireless messages received by owners or brokers re health would be passed on to the Authority by telephone. Verbal messages, usually by telephone, relative to sickness either on incoming vessels or on those in dock are received from Pilots, Customs Officers, Dock Masters and Owners or Brokers.

Lists of vessels from "infected" and "suspected" ports are periodically issued to Customs Officers, Pilots and Dockmasters. They are amended as occasion requires. Upon arrival from listed ports, "day" or "night" signals are shown and the vessel proceeds, if no sickness is reported, to some convenient mooring place, there to await the visit of the Medical Officer. This is done with as little delay as possible. In the meantime no unauthorised person is allowed to board or leave the vessel. Notification of arrival of any such vessel and where she is to be moored is given by telephone, either by day or by night, by Customs Officers and Dockmasters to the Port Sanitary Inspector, who in turn notifies the Medical Officer.

Vessels are visited by the Port Sanitary Inspector, either on arrival or as soon after as possible and enquiries are made into the health of the crews and as to whether there has been any sickness or deaths during the voyage. These particulars are noted and a printed notice is given to the master or officer in charge requiring him to notify the Port Sanitary Authority of the existence of infectious disease occurring on board during the ship's stay in port.

(3) What vessels are boarded on arrival, by whom, where and how.

All vessels, whether coastwise or from foreign, excepting British trawlers, are boarded on arrival in the outer Bay by Pilots. For this purpose they possess an excellent steam cutter and also a powerful motor launch for use when the cutter is laid up. H.M. Customs Waterguard Officers are the next persons to board all vessels on arrival from foreign and occasionally coastwise vessels. For vessels moored at the buoys in the Harbour or in the Docks, the Customs row boat is used ; otherwise the vessel is boarded at the quayside or in dry dock. The Port Sanitary Inspector boards most vessels from foreign and as many coastwise as possible, on arrival or as soon after as circumstances permit. Vessels at buoys are boarded by means of either a ship's boat or a hired foy boat. Vessels in the outer Bay having reported infectious disease on board would be visited by the Medical Officer and Inspector by means of a L. & N.E.R. Co.'s tug boat placed at their disposal by the Harbour Master.

(4) Arrangements for disposal of cases of infectious disease and for observation or surveillance of contacts.

At present cases of infectious disease—other than Small Pox—are sent to the Port Sanitary hospital. Cases of Small Pox are sent to the Middlesbrough Small Pox hospital. Contacts are either sent to the Port Sanitary hospital for observation or surveillance or allowed to remain on board. If contacts are allowed to leave a vessel notification is sent to the Medical Officers of the areas concerned.

(5) Arrangements for disinfection of infected quarters, bedding, clothing, etc.

At the Inspector's house disinfectants, fumigants and sprays are stored : these are available at any time they may be required for the disinfection of berths. Infected bedding and clothing are transferred to the Port Sanitary hospital where they are disinfected by means of a Washington Lyons steam disinfector.

(6) Arrangements for cleansing of persons.

By an arrangement with the West Hartlepool Corporation their Burn Road Cleansing Station can be used for the cleansing and disinfestation of verminous seamen and their belongings.

(7) Arrangements for ambulance transport.

A motor ambulance is used for the transport of cases of infectious disease to the Port Sanitary hospital, and a similar mode of conveyance is provided by the Middlesbrough Corporation for transport of Small Pox cases from this Port to the Middlesbrough Small Pox Hospital.

(8) Arrangements for detection and treatment of Venereal Disease amongst sailors.

Inquiries are made by the Port Sanitary Inspector as to the existence of venereal disease on ships : if any exists, treatment at the West Hartlepool Clinic is recommended. Leaflets on the subject, giving time and place of clinic are distributed on incoming vessels.

(9) Arrangements for bacteriological examinations of rats.

Specimen rats are periodically sent from this port to Dr. H. A. Cookson, (Bacteriologist and Pathologist, Sunderland Infirmary) for his examination and report.

(10) Arrangements for other bacteriological examinations.

No special arrangement exists, but when occasion arises specimens for clinical purposes are sent to the College of Medicine, Newcastle.

Table C (*Ministry of Health*).

Cases of Infectious Sickness landed from Vessels.

Disease	No. of Cases during 1931		No. of Vessels concerned	Av. No. of Cases for prev. 5 years
	Passengers	Crew		
Chicken Pox ...	...	1	1	·2
Continued Fever	...	...	...	...
Diphtheria ...	...	...	...	...
Dysentery ...	...	...	...	...
Erysipelas ...	...	...	...	...
Malaria	...	...	...	...
Measles	...	...	...	·2
Pneumonia ...	...	...	...	·4
Relapsing Fever...	...	...	...	...
Scarlet Fever ...	...	...	...	...
Small Pox ...	...	...	...	...
Tuberculosis ...	...	...	...	...
Typhoid Fever ...	...	1	1	·2
Typhus Fever ...	...	...	...	...

TABLE D. (*Ministry of Health*).

Cases of Infectious Sickness occurring on Vessels during the voyage but disposed of prior to arrival.

Disease	No. of Cases during 1931		No. of Vessels concerned	Av. No. of Cases for prev. 5 years
	Passengers	Crew		
Chicken Pox ...	...	...	...	...
Continued Fever	...	...	...	...
Diphtheria ...	...	...	...	...
Dysentery ...	...	...	...	...
Erysipelas ...	...	...	...	...
Malaria	...	1	1	·2
Measles	...	...	...	...
Pneumonia ...	...	2	2	·4
Relapsing Fever...	...	...	...	...
Scarlet Fever ...	...	1	1	·2
Small Pox ...	...	1	1	·2
Tuberculosis ...	...	...	...	...
Typhoid Fever ...	...	7	1	1·4
Typhus Fever ...	...	...	...	...

V. MEASURES AGAINST RODENTS.

1. Steps taken for the Detection of Rodent Plague.

(*a*) In ships in the Port. All rats captured or killed on board ship are examined before being cremated. Suspected rats are sent to Sunderland Infirmary for bacteriological examination.

(*b*) On Quays, Wharves, Warehouses, etc., in the vicinity of the port. Arrangements are made with the L. & N.E.Rly.Co. whereby any suspected dead rats found on their premises would be sent by the Port Sanitary Inspector for bacteriological examination.

2. Measures taken to prevent the passage of rats between Ships and Shore.

Rat guards are placed on ropes and gangways tarred.

3. Methods of deratisation of

(*a*) **Ships.** This work is done by private contractors who use either Sulphur Dioxide or Hydrocyanic Acid Gas. The quantities used and time of exposure are in accordance with the recommendations of the Ministry of Health and the operations are superintended by the Port Sanitary Inspector.

The Official Ratcatcher traps and poisons when necessary.

(*b*) **Premises in the vicinity of docks or quays.** The methods employed in deratising warehouses, wharves, quays, etc., in the vicinity of the docks are those of poisoning, trapping, and gassing. Cats are also kept in the warehouses belonging to the L. & N.E.Rly. Co., for the purpose of reducing the rat population there to a minimum.

4. Measures taken for the detection of rat prevalence in ships and on shore.

(*a*) **On Ships.** The official Rat Catcher of the Port Sanitary Authority, acting under the supervision of the Inspector

carefully searches ships throughout for evidence of rats and noting any harbourage that may exist.

(*b*) **On Shore.** The Rat Catcher employed by the L. and N.E. Rly Co., periodically visits the various warehouses, quays and wharves which are the property of the Company, in search of evidence of the existence of rats.

5. Rat Proofing.

(*a*) To what extent are docks, wharves, warehouses, etc., rat proof? Dock quays are mostly built of stone but there are several wooden quays and jetties. Three large warehouses are substantially built of stone, iron, bricks and cement: the doors are rat proofed by sheet iron at the bottoms and the windows by expanded metal. A wooden warehouse, stacked timber and pit props, wooden cabins and stone breakwaters afford much harbourage for rats.

(*b*) Action taken to extend rat proofing.

(i) In Ships. When, during the examination of ships for evidence of rats, harbourage, runs, gnawings, or defective bulkheads are found, directions are given to the owner or master concerned requiring places to be made rat proof.

(ii) On Shore. The Port Sanitary Authority has no jurisdiction over quays, wharves, warehouses, etc., or land premises.

INTERNATIONAL SANITARY CONVENTION (Paris), 1926.

Since the Public Health (Deratisation of Ships) Regulations, 1930, came into operation a marked decrease in the rat population on ships is noticeable. This is very important

inasmuch as it will prove very effective in the prevention of the entrance into this country of rat-borne diseases. During the year 1931, when there were 12 vessels fumigated, 560 rats and 54 mice were destroyed : during 1930 there were 14 fumigations and 1,166 rats were destroyed. There were 99 certificates issued during 1931 as compared with 189 certificates issued in 1930 which goes to prove that other countries are falling into line with the requirements of Art. 28 of the International Sanitary Convention (Paris) 1926 and issuing more certificates to their own ships. The work in connection with the issue of certificates entails much time and labour, is often of an arduous and dangerous nature, is carried out at all hours of the day and night, involves work on Sundays and holidays, and the clerical work in preparing certificates has increased.

The question of charges for certificates is under consideration by the Ministry of Health at the present time. Due regard will be paid to the work entailed before a certificate is issued and also to the important fact that every effort is made in this country not to delay shipping.

RATS DESTROYED DURING 1931.

TABLE E. (*Ministry of Health*).

(1) On Vessels.

Number of	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.	Total in Year
Black Rats	...	14	30	48	72	18	9	12	28	...	60	...	291
Brown Rats ...	...	5	...	37	30	35	46	104	3	...	9	...	269
Species not recorded ...	...	...	37	...	...	...	...	...	17	...	...	...	54
Rats Examined ...	...	1	...	...	...	...	...	1	...	...	...	...	2
Rats Infected with Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil

TABLE F. (*Ministry of Health*)

(2) In Docks, Quays, Wharves and Warehouses.

Number of	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.	Total in Year
Black Rats	...	...	...	...	...	...	...	...	...	...	...	...	...
Brown Rats	...	...	...	...	...	...	...	...	...	...	...	...	...
Species not recorded ...	10	7	22	12	22	25	13	12	28	29	34	14	228
Rats examined ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil
Rats infected with Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	Nil

The particulars furnished in Table F record the work of the L. & N.E.Rly. Co.'s Rat Catcher and were supplied through the courtesy of Mr. R. Tate, the Local Manager of the Company.

In addition to the numbers given in Tables E. and F. the Port Sanitary Rat Catcher caught and destroyed round the docks 45 Brown rats. Thus a total of 833 rats and 54 mice were destroyed during 1931 on Ships, in Docks, Quays, Wharves, Warehouses, etc., as compared with 1,684 rats destroyed during 1930.

TABLE G. (*Ministry of Health*).

Particulars relating to plague "infected" or "suspected" vessels arriving in the Port during 1931.

Name of Vessel.	Date of Arrival.	Whether "Infected" or "Suspected."	Methods of Rat Destruction Employed	Number of Dead Rats Recovered.	Whether a Certificate of Deratisation was Issued.	Remarks.
1	2	3	4	5	6	7
Nil	Nil	Nil	Nil	Nil	Nil	Nil

TABLE H. (*Ministry of Health*).

Measures of rat destruction on vessels from Plague infected Ports (other than those included in Table G), arriving in the Port during 1931, and number of Certificates issued in respect of such vessels.

Total number of Vessels arriving from Plague infected Ports.	Number of such Vessels Fumigated by S.O.2	Number of Rats killed.	Number of such Vessels Fumigated by H.C.N.	Number of Rats killed.	Number of such Vessels on which trapping, poisoning, &c., were employed.	Number of Rats killed.	Number of such Vessels on which measures of Rat destruction were not carried out.	No. of Fumigation Certificates issued on Form "Port II"*		Number of other Certificates issued.
								Deratisation.	Exemption.	
1	2	3	4	5	6	7	8	9	10	11
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

TABLE I. (*Ministry of Health*).

Measures of Rat Destruction on Vessels (other than those included in Tables G and H) and number of Certificates issued in respect of such vessels during 1931.

Number of Vessels. Fumigated by S.O.2.	Number of Dead Rats recovered	Number of Vessels Fumigated by H.C.N.	Number of dead Rats recovered.	Number of Vessels on which Trapping, Poisoning, &c., were employed.	Number of dead Rats recovered.	Number of Fumigation Certificates issued on Form "Port II"*		Number of other Certificates issued.
						Deratisation	Exemption	
1	2	3	4	5	6	7	8	9
10	282	2	61	11	166	13	86	Nil

* Form Port II is issued only by the Port Medical Officers of Health of Ports approved by the Minister of Health for the issue of Deratisation and Deratisation Exemption Certificates in accordance with the provisions of Article 28 of the International Sanitary Convention of 1926.

VI. HYGIENE OF CREWS' SPACES.

The following table classifies the nuisances and defects found to exist on board the 1,136 vessels inspected during the year 1931. Of this number, 92 or 8%, were found to have one or more nuisances or sanitary defects. For the most part these were made up of dirty and verminous crews' quarters and bedding, foul w.c.'s and bilges, defective w.c.'s, port lights, stoves and fittings, leaky overhead decks and defective drainage of forecastles. All necessary remedial work was completed before vessels left the port.

TABLE J. (*Ministry of Health*).

Classification of Nuisances.

Nationality of Vessel.	Number Inspected during 1931.	Defects of Original Construction	Structural Defects through wear and tear.	Dirt, Vermin and other conditions prejudicial to Health
British ..	715	1	21	52
Other Nations	421	Nil	19	25

VII. FOOD INSPECTION.

1. Action taken under :—

The Public Health (Imported Food) Regulations, 1925.

The Public Health (Imported Milk) Regulation, 1926.

The Public Health (Preservatives, etc., in Food) Regulations, 1927.

There has been no necessity to take any action under the above Regulations at this port during the year 1931. Several small cargoes of foreign potatoes were imported. These were inspected on arrival and found in good condition.

2. Shell Fish.

There are no shell fish beds or layings within the jurisdiction of this Authority.

Hartlepool possesses an excellent Fish Quay where fresh fish is landed daily from trawlers, drifters and motor fishing boats. The fish is inspected by the Hartlepool Medical Officer of Health and by the town inspector. Unsold fish and offal are removed to a factory within the Borough of Hartlepool to be converted into fish meal, etc.

3. Number of Samples of Food examined by :

(*a*) **Bacteriologist.**

Nature of Sample. Result of examination.

(*b*) **Analyst.**

Nature of Sample. Result of examination.

There has been no necessity to submit any samples of food for examination during 1931.

In conclusion I have to express my thanks to the Officers of H.M. Customs at the Port, also to the Dock Superintendent, Harbour Master and Dockmasters of the London and North Eastern Railway Co., and to the Pilot Master and Pilots for their co-operation with the Officers of the Hartlepool Port Sanitary Authority in carrying out the various duties.

ARNOLD S. L. BIGGART, M.B., Ch.B.,

Medical Officer of Health.